LIFECARE PLV-100

by

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Classification

- **Electrically powered**
  - **microprocessor controlled**
- **Volume-control, time cycled**
- **Rotary drive piston**
- **Modes**
  - **Control**
  - **A/C**
  - **SIMV**

Modes

- **Control**
- **Assist/Control**
- **SIMV - machine "looks" for a patient inspiratory effort 6 seconds before the next scheduled mandatory breath.**
- **Tidal Volume - LED display volume setting 50 - 3000 ml.**

Controls

- **Rate - LED display set rate 2 - 30 BPM.**
- **I:E Ratio display**
  - **Flashes if inverse Ratio is set.**
- **Flowrate - LED display of flowrate 10 - 120 LPM.**
  - **Flashes when insufficient.**
- **Sensitivity**
  - **Less or more**

Controls (cont.)

- **Airway Pressure Limit (10-100 cm/H2O)**
  - **Vents excess pressure and sounds audible alarm simultaneously. Inspiration ends.**
- **Flow Rate LED window.**
- **Power Switch (ON/OFF/RECHARGE)**
  - **Internal and external battery will be charged as long as line cord is plugged into wall outlet, regardless of switch position.**

Alarms

- **Low Pressure (2 - 50 cm/H2O)**
  - **Delayed audible alarm activated when proximal airway pressure falls below low pressure alarm setting.**
    - **Green LED lamp lights immediately when proximal airway pressure falls below alarm setting (audible delayed 15 seconds in A/C and SIMV modes.**
    - **In SIMV mode, if proximal airway pressure does not exceed Low Pressure setting during a machine breath, audible alarm activated immediately at the end of the machine breath. Serves as disconnect alarm).**
- **Apnea Alarm**
  - **same as Low Pressure in SIMV during machine breath.**
- **Power Failure**
  - **Audible alarm when "ON" and no power applied.**

Alarms (cont.)

- **Microprocessor Failure**
  - **Machine monitored internally and locks motor out if failure conditions sensed. Patient able to breathe through machine.**
  - **During ventilator malfunctions (Pressure transducer failure and piston system failure), an audible "fast beep" alarm will sound.**

Alarms (cont.)

- **Low Internal Battery**
  - **If voltage of internal battery falls below 9.5 volts, audible alarm sounds and "Internal Battery" lamp will flash on and off.**
- **Low External Battery**
  - **same as for internal battery. "External Battery" lamp will flash on and off.**
- **Reverse External Battery Connection**
  - **If battery leads reversed on external battery connection, an audible alarm will sound (even in OFF position) until the external battery is disconnected. No damage will occur to the unit or external battery.**
- **Switch to Battery**
  - **When power source switches automatically to internal or external battery, a 3 second audible alarm will sound to alert the operator that limited operation time remains.**

Front Panel

- Increase Inspiratory Flow
  - Red indicator lamp flashes when set inspiratory flow is insufficient to meet other set parameters. Machine will increase flow over set value and flash red light.
- AC Power Source
  - Green indicator light
- Internal DC Power Source
  - Amber indicator light
- External DC Power Source

- **Assist/Spontaneous LED**

  Green indicator light indicates an assisted breath in A/C mode and indicates spontaneous breaths in SIMV mode. Assisted and Spontaneous breaths will register on the BPM Display.

Front Panel (cont.)

- **Patient BPM Digital Display –**
  - **In Control mode, indicates BPM set.**
  - **In Assist/Control mode displays total number of breaths.**
  - **In SIMV mode displays total number of machine and spontaneous breaths.**
  - **Updated every 4 breaths or whenever rate knob changed.**
- **I:E Ratio Digital Display - blinks during inverse ratio or readings over 1: 9.99 (Off during SIMV).**
- **Inspiratory Flow Rate Digital Display - displays peak**

- Tidal Volume Digital Display - displays tidal volume set.

- Pressure Gauge - displays pressure at proximal airway.

On Start-Up

- Diagnostic Check On Start-Up
  - When PLV turned on, performs 5 second self check.
    - During check
    - Digital read 88's
    - Vt displays 0.0 (in case of pressure transducer failure, Vt displays 1.0).
    - If test detects error, 2.0 will be displayed in Vt display and audible alarm sounds - Do Not Use.